TS-120 CUE LIGHT MASTER STATION
TS-10 CUE LIGHT RECEIVER
TS-99 PRESET CONTROL

USER MANUAL

March 2011 © ASL Intercom BV

DESIGNED AND MANUFACTURED BY:
ASL INTERCOM B.V.
ZONNEBAAN 42
3542 EG UTRECHT
THE NETHERLANDS
PHONE: +31 (0)30 2411901
FAX: + 31 (0)30 2667373
E-MAIL: info@asl-inter.com
WEB: www.asl-inter.com

CONTENT OF THIS USER MANUAL

1.0 INTRODUCTION....3
2.0 UNPACKING....3
3.0 INSTALLATION....3
4.0 WARRANTY....3
5.0 TS-120 FRONT PANEL CONTROLS....4
6.0 TS-120 REAR PANEL CONNECTORS....4
7.0 TS-10 CUE LIGHT RECEIVER....5
8.0 OPERATING A CUE LIGHT SYSTEM....5
9.0 TS-120 INTERNAL CONTROLS....6
10.0 TS-120 TECHNICAL SPECIFICATIONS....6
11.0 THE TS-99 PRESET CONTROL....6
12.0 USING THE TS-99 PRESET CONTROL....7

1.0 INTRODUCTION

A cue light system consist of TS-120 master stations and TS-10 cue light receivers.

A TS-120 master station has 12 cue light channels, each having an ATTN (attention) push button and a GO push button, accompanied by a bi-color LED indicator. Furthermore the TS-120 has an “All selected channels GO” button and “CLEAR” button.

Up to twelve TS-120 units can be linked to each other, resulting in 144 cue light channels. The units are linked via the D-connectors on the rear panels, using the ‘TS Link Cable’. Linked TS-120’s are operated by a TS-99 control unit.

The TS-120 may be connected to mains voltages from 100 - 240 V AC, 50/60 Hz.

A TS-10 cue light receiver has a large red “ATTENTION” light, an “ACKN” (acknowledge) push button and a large green “GO” light.

TS-120 master stations and TS-10 cue light receivers are interconnected by standard microphone cable (two conductors and one shield) with XLR-3 connectors.

Use high quality microphone cable only !

Cue light receivers are powered (30V DC) by a TS 120, via the microphone cable.
The TS-120 is designed to have only one TS-10 on each output XLR. More than one TS-10 connected to an output would disturb the proper functioning of both the TS-120 and the TS-10.

2.0 UNPACKING

The shipping carton contains the parts listed below:

- The TS-120
- User manual
- Mains cord

If any are missing, contact your dealer.

ASL has taken great care to ensure this product reaches you in flawless condition.

After unpacking the unit please inspect for any physical damage to the unit, and retain the shipping carton and relevant packing materials for use should the unit need returning.

If any damage has occurred, please notify your dealer immediately so that a written claim can be initiated. Please also refer to the warranty section of this manual.

3.0 INSTALLATION

The TS-120 requires a vertical rack size of 2U (2.5", 89 mm). It is not necessary to provide rear support by extra bracing or shelving.

Adequate ventilation must be provided by allowing sufficient space around the sides and rear of the unit to ensure free circulation of air.

The power supply is located on the rear of the unit, and after a period of time it will feel hot to the touch. This is quite normal, and should be no cause for alarm.

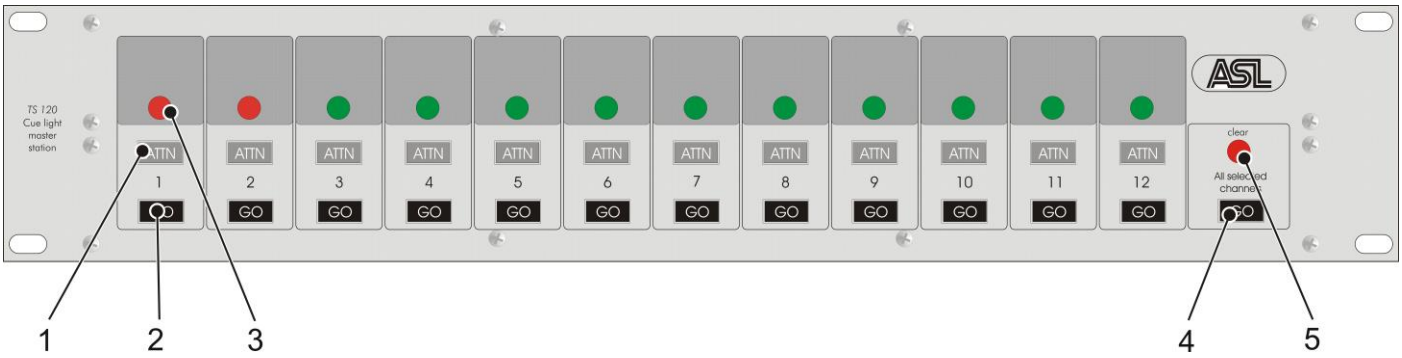
4.0 WARRANTY

This unit is warranted by ASL Intercom to the original end-user purchaser against defects in workmanship and used materials for a period of one year from date of shipment to the end-user.

Faults arising from misuse, unauthorized modifications or accidents are not covered by this warranty.

If the unit is faulty it should be sent in its original packing, to the supplier or your local ASL dealer, with shipping prepaid.
A note must be included stating the faults found and a copy of the original suppliers invoice.

5.0 TS-120 FRONT PANEL CONTROLS



1 ATTENTION button
This push button activates the ATTENTION signal for that specific channel

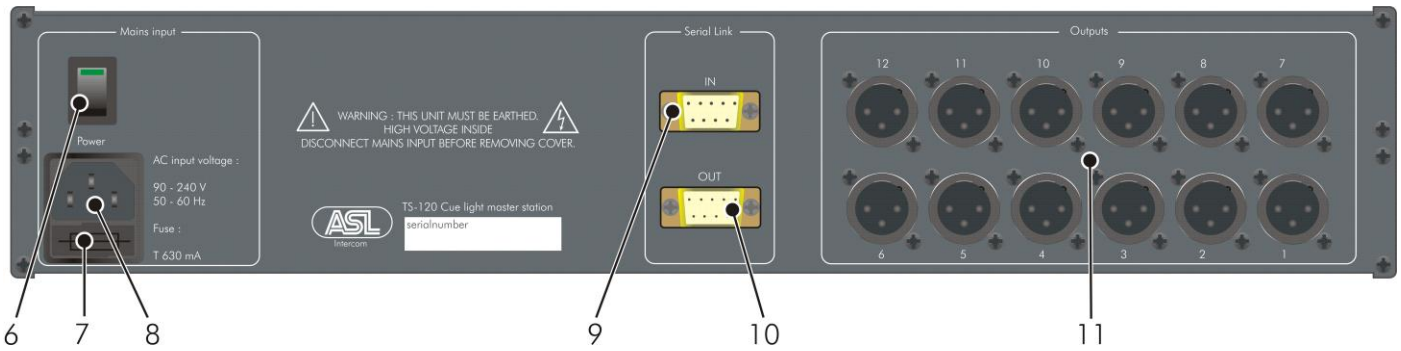
2 GO button
This push button activates the GO signal for that channel

3 Indicator LED
This LED indicates the status of the channel (Off, ATTN, Acknowledged or GO)

4 All selected channels GO button
This push button activates the GO function for all channels which are in Attention mode.

5 CLEAR button
With this button all channels which are in GO mode can be switched off simultaneously;
it clears the channels for the next action. See also section 'internal Controls'

6.0 TS-120 REAR PANEL CONNECTORS



6 MAINS power switch
To switch the unit On and Off.

7 FUSE holder
The fuse in this holder needs to be a 1.25 A slow blow type.

8 MAINS entrance
This MAINS entrance accepts any voltage from 100 - 240 V AC at 50-60 Hz.

9 LINK IN connector
To this Sub-D9 connector the TS-99 preset control is connected. This connector is also for linking two TS-120's : the TS Link Cable coming from another TS-120 goes to this LINK IN connector

10 LINK OUT connector
This connector is used for linking two TS-120's (From this LINK OUT connector the TS Link Cable goes to another TS-120)

The total cable length between all linked TS-120's should not be more than 100 m.

11 XLR connectors
These twelve XLR-3 connectors are for connecting the TS-10's

Pin assignments:
1. 0 V / ground shield
2. +30 V power wire
3. signalling line

.

7.0 TS-10 CUE LIGHT RECEIVER

The TS-10 cue light receiver has a large ATTENTION light, a large GO light and an acknowledge (ACKN) button.

The unit is powered by a TS-120 via the microphone cable which is connected to the XLR-3 on the TS-10 rear panel.

The maximum cable length between a TS-120 and a TS-10 is 100 m

8.0 OPERATING A CUE LIGHT SYSTEM

Described below is how to operate a cue light system consisting of one TS-120 master station and a number (max. 12) of TS-10 cue light receivers. For a description of how to operate a cue light system with the TS-99 preset control unit, see section “The TS 99”

a. On the TS-120, push the ATTN button of those channels you want to send an attention signal to. The LEDs of the selected channels now flash red, indicating that they are in “attention mode”.

   (A channel which does not have a TS-10 cue light receiver connected cannot be put in attention mode; the LED of that channel does not switch on)

   The ATTENTION lights of the chosen TS-10’s are now flashing. The reception of an attention signal can be acknowledged by pushing the ACKN button on the TS-10’s. The large red ATTN lights are now constantly lit.

   The LEDs of the corresponding channels of the TS-120 are now lit constantly red, indicating that the receivers have acknowledged the reception of the attention signal.

b. Push the GO button(s) of these channels on the TS-120. Their LEDs are now lit constantly green and the GO signal is sent to the TS-10’s.
   One can also push the “All selected channels GO button” by which the GO signal is sent to all selected channels simultaneously.

   (The GO signal can also be sent to channels which have not received an acknowledgement of the sent attention signal. It is not possible to send a GO signal to channels which are not in attention mode).

   On the connected TS-10’s the large ATTN light extinguishes and the large GO light illuminates. This is the “take action” sign.

c. When the ‘cue’ is executed, push the CLEAR button of the TS-120. The LEDs on the TS 120 which are lit green (the corresponding channels are in “go mode”) extinguish as well as the GO lights on the TS 10’s.
   The LEDs on the TS-120 which are flashing or constantly lit red (the corresponding channels are in “attention mode”) remain illuminated and stay available for a GO procedure.

   (The TS-120 can be programmed in such a way that by pushing the CLEAR button <u>all</u> LED’s extinguish, so the ones of the channels which are in “go mode” <u>and</u> the ones of the channels which are in “attention mode” For programming, see section ‘Internal Controls’).

d. The cue light system is now ready for the next “Cue” : an Attention, (Acknowledge) and Go sequence.

9.0 TS-120 INTERNAL CONTROLS

On the far left of the bottom PCB are a number of small slide switches:

Slide Switch № 7
By moving this slide from the OFF to the ON position, one puts the TS-120 into “demonstration mode”. All its functions may be demonstrated without necessarily having any TS-10 connected.

Slide Switch № 8
By moving this slide from the ON to the OFF position, the TS -120 is programmed in such a way that when pushing the CLEAR button all LED’s extinguish, so the ones of the channels which are in “go mode” and the ones of the channels which are in “attention mode” .

10.0 TS-120 TECHNICAL SPECIFICATIONS

Dimensions & Weight:
Width: 480 mm
Height: 88 mm
Depth: 126 mm
weight : 1200 grams

ASL reserves the right to alter specifications without prior notice

Mains voltage: 100 - 240 V AC, 50/60 Hz.
Power Consumption: max. 60 Watts
Power to TS-10’s: 30V DC

Pin configuration Sub-D9 connectors :
Pin 4: RS 485 positive signal
Pin 5: +5V DC to TS-99
Pin 7: GND
Pin 8: RS 485 negative signal

11.0 THE TS-99 PRESET CONTROL

1 PROGRAM button
To put the unit into program mode

2 STORE button
To store a preset

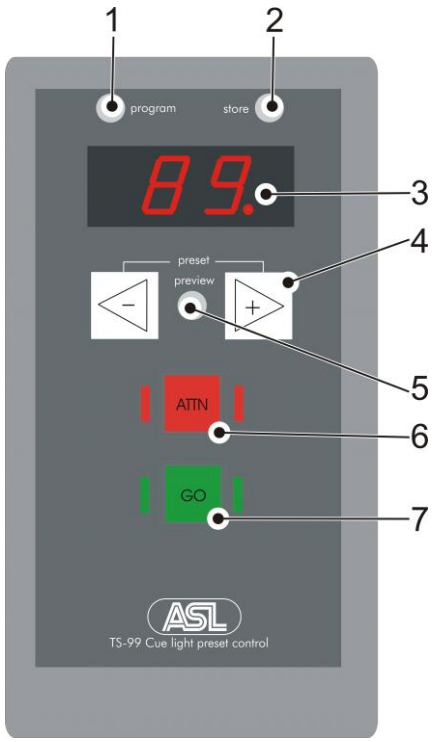
3 DISPLAY
Showing the preset number

4 SELECT PRESET buttons
To select a preset number out of the max. 99 numbers.

5 PRESET VIEW button
To show the selected preset on the TS-120

6 ATTENTION button
To send an “attention” signal from all linked TS-120’s to all in the preset stored channels

7 GO button
To send an “go” signal from all linked TS-120’s to all channels stored in the preset



The TS-99 connects to the TS-120 via a cable of 1.5m which is fixed to the TS-99. One may lengthen this cable to max. 10 m. The TS-99 is powered by the TS-120 via this cable (5V DC).

12.0 USING THE TS-99 PRESET CONTROL

With the TS-99 one may operate a cue light system consisting of one TS-120 and a number of connected TS-10's. One can store up to 99 'Cue' presets and control the ATTN, GO and CLEAR button of the TS-120's using the ATTN and GO buttons of the TS-99.

When several TS-120's are linked one has to operate such a system with the TS-99 to make it a one multi-channel (max. 144) cue light system.

Programming & storing a preset:

a. Select the requested preset number with the "left" and "right" SELECT PRESET buttons
b. Push the PROGRAM button.
   The TS-120's are now in 'program mode' and show the content of the chosen preset number: the LED's of the channels in this preset are flashing green
c. Push the GO buttons of the channels you want to add to this preset.
   Push the GO buttons of the channels you want to remove from this preset
d. To store the just (re-) configured preset, push and hold the STORE button until the TS-120's go out of their program mode and return to normal operation

Previewing a preset:

a. Select the requested preset number with the "left" and "right" SELECT PRESET buttons
b. Push and hold the PREVIEW button. The content (if any) of the selected preset is shown on the TS-120's:
   The LED's of the in this preset stored channels are flashing green

Activating a preset ('attention' and 'go'):

a. Have a look at the display. In case there is a preset presently active (in an Attention and Go sequence) this is indicated by a blinking dot next to the preset number. Before another preset can be selected, the Attention and Go sequence of this active preset must first be completed
b. Select the requested preset number with the "left" and "right" SELECT PRESET buttons
c. Push the ATTN button on the TS-99. All channels stored in the selected preset go into attention mode and the attention signal is sent to the corresponding TS-10's
d. Push the GO button on the TS-99.
   All channels stored in the selected preset go from ATTN to GO (the corresponding LED's go from red to green) and the GO signal is sent to the to the referring TS-10's
e. Push the GO button on the TS-99 again.
   All channels are now cleared:
   the LED's on the TS-120's and the GO lights on the TS-99's extinguish
f. One may select another preset and start the next 'attention' and 'go' sequence

Between step c. and d. there might be an 'acknowledgement' phase: from the TS-10's an acknowledgement signal has been sent to the corresponding TS-120 channels.
Whether an acknowledgement signal has been received is not shown on the TS-99, only on the TS-120's (the LED's of the referring channels go from flashing red to constantly red).